



IN THE UNITED STATES
PATENT AND TRADEMARK OFFICE

#9 Declaration
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APPLICANT: Dawson et al

EXAMINER: Ho, Thomas

SERIAL NO.: 09/931370

ART UNIT: 3677

FILING DATE: August 16, 2001

DOCKET NO: 16409/93578-00

TITLE: An Improved Magnetic Seal

Hon. Commissioner of Patents and Trademarks
Washington, D.C. 20231

DECLARATION OF MICHAEL DEWEESE

My name is Michael Deweese. My educational background is Associate Degree Mechanical Engineering, Chattanooga State Technical Institute, Chattanooga, Tennessee 1973. I am currently employed as the Technical Service Manager for Isomag Corporation, assignee of all interest in the above mentioned patent application. My job duties includes product design & development, specification, application and manufacturing of seals.

My training pertinent to seal function and design includes the following:

A.W. Chesterton Fluid Sealing Specialist School, 1974
Sepco Compression Packing and Mechanical Seal School 1977
EG & G Sealol Mechanical Seal Specialist training 1979
Anchor Packing Mechanical and Seal School 1985
Garlock Levels I, II & III Product Training 1988
Burgmann Seals Mechanical Seal Products School 1991
Burgmann Engineering Mechanical Manufacturing Standards Training 1991
Burgmann Engineering Mechanical Seal Design Standards Training 1992
John Crane Sales Engineer Training 1996
John Crane Gas Seal Training 1997
John Crane Design Standards Training 2000
Flexibox Coupling Training 2000

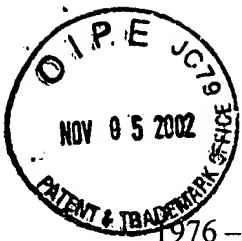
My experience in the seal industry includes the following professional experience:

1974 - 1976
Fluid Sealing Specialist
Sales, specification & application of mechanical seals & compression packing
Mechanical Seal & Packing Company, Inc.
Shreveport, Louisiana

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1976 – 1977

Application Engineer
Specification, application & design components mechanical seals.
Seal-Pac, Inc.
Baton Rouge, Louisiana

1977 – 1983

Vice President, Engineering & General Manager
Design mechanical seal components & assemblies; supervise all aspects of manufacturing, assembly and technical services of mechanical seals.
Fluid Sealing Company, Inc.
Baton Rouge, Louisiana

1984 – 1990

Technical Service Manager, Regional Manager
Technical support & product development of mechanical seals; Regional Manager
Anchor Packing Company, Inc. (a division of Colt Industries)
Baton Rouge, Louisiana
St. Louis, Missouri
San Francisco, California
Seattle, Washington

1991 – 1993

Product Manager, Technical Service Manager
Manage product development, manufacturing & marketing of Cartex seals.
Manage design and application group.
Burgmann Seals America, Inc.
Houston, Texas

1995 – 2001

Sales Engineer
Specification, application & sales of mechanical seals.
John Crane, Inc.
Mobile, Alabama

2001 – present

Technical Service Manager
Product design & development, specification, application and manufacturing of mechanical seals.
Isomag, Corporation
Baton Rouge, Louisiana

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have conducted over 100 client and internal mechanical seal training classes. My experience includes teaching the following mechanical seal subject areas: Seal selection, Seal application, Seal form and function, Seal design criteria, Seal trouble shooting and Seal sales and marketing.

REVIEW OF MATERIALS

"I have thoroughly reviewed a copy of the patent application filed by the inventor, the Office Action dated 12/07/92, and the cited patents."

The combination of Dawson/Murphy.

There is no incentive to combine the two references -

The Dawson patent is a design improvement of a magnetic end face shaft seal which seals by the use of lapped flat contacting sealing faces. Dawson's invention is a method to improve the contact between his seal's rotating sealing face and stationary sealing face when the rotary sealing face is in motion and the stationary sealing face is not square or normal to the centerline of the host equipment shaft and or the centerline of the seal rotary. The Dawson seal design also reduces axial forces that would have been created by axial oscillation of the rotary sealing face as it tracked or followed an un-square stationary sealing face. This oscillation could cause the seal to be axially displaced to an unfavorable or non-working position. Dawson's patent utilizes a radial annulus type groove to contain and control the secondary sealing o-ring of the stationary sealing face in a fashion to accomplish the above mentioned design goals.

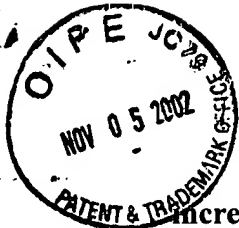
The Murphy patent is a design improvement of a non-contacting labyrinth type seal. The Murphy seal operates as a clearance seal and does not contain magnets nor have lapped flat sealing faces that must contact to operate in order to maintain a seal. Murphy's patent is a method to interlock the rotary portion of a labyrinth seal to the stationary portion of a labyrinth seal.

I have compared the teachings of Dawson and Murphy and find no reason to combine these references as has the examiner. The design goal and function of Dawson's patent deals with a specific configuration of an o-ring and its complementary surfaces to control mechanical action within a magnetically closed contacting face seal. The design goal and function of Murphy's patent is a method to configure and deform interlocking lips so as to allow assembly of a non-contacting labyrinth seal.

In Dawson's invention, the stationary sealing face is retained by an o-ring and complementary annulus and hence there is no incentive to use Murphy's teachings. Murphy's invention does not contain a stationary sealing face nor magnets and hence there is no incentive to use Dawson's teachings.

The examiner indicates that the combination is obvious as the combination "would decrease manufacturing costs and extend the life of the assembly." **Adding the interlocking lip/flange arrangement to Dawson patented device would result in a more complex seal and result in**

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increased manufacturing costs. To add the interlocking feature of Murphy to the patent of Dawson is not possible. Even so, adding the interlocking feature of Murphy to a otherwise typical magnetic face seal would not be a cost savings as Murphy has claimed. Both rotary and stationary parts would require additional material, as the axial length and diameter of each part would increase. Additional machining steps would also be required to manufacture the multiple surfaces of the interlocking lips. Therefore, I find the two patents have no obvious relationship and a combination of Dawson and Murphy patents has no merit.

I hereby declare that all statements made herein of my own knowledge are true and that statements made on information and belief are believed to be true and further that these statements are made with the knowledge that willful, false statements and the like so made are punishable by fine or imprisonment or both, under Section 1001 of Title 18 of the United States Code, and that such willful, false statements may jeopardize the validity of the application or any patent issued thereon."

DATE: Oct 28, 2002

Michael Deweese

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